



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Erik W. Rasmussen

SERIAL NO.: 09/927,771

FILING DATE: August 10, 2001

TITLE: SOUND PROCESSING SYSTEM INCLUDING FORWARD FILTER THAT EXHIBITS ARBITRARY DIRECTIVITY AND GRADIENT RESPONSE IN SINGLE WAVE SOUND ENVIRONMENT

EXAMINER: (to be assigned)

ART UNIT: 2644

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CERTIFICATE OF MAILING

I hereby certify that this paper is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231, on the date printed below:

Date: 3/21/02

Name: Sharon E. Byam

COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Each item of information listed in the attached FORM PTO-1449, for which a copy of each is attached, may be material to the examination of the above-identified application and is, therefore, submitted in compliance with the duty of disclosure defined in 37 CFR §§ 1.56, 1.97 and 1.98. The Examiner is requested to make these items of official record in this application.

This Information Disclosure Statement under 37 CFR §§ 1.56, 1.97 and 1.98 is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that any one or more of these items constitutes prior art.

I

This statement is filed pursuant to:

( X ) 37 C.F.R. § 1.97(b).

This information disclosure statement is filed either (1) within three months of the filing date of a national application other than a continued prosecution application under §1.53(d); (2) within three months of the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in an international application; or (3) before the mailing date of a first office action on the merits, whichever event occurs last.

Accordingly, this information disclosure statement requires no fee and no certification.

( ) 37 C.F.R. § 1.97(c).

This information disclosure statement is filed after the period specified in 37 C.F.R. § 1.97 (b), but before the mailing date of either (1) a final action under 37 C.F.R. § 1.113; (2) a notice of allowance under 37 C.F.R. § 1.311; or (3) an action that otherwise closes prosecution in the application.

Accordingly, this information disclosure statement requires either the fee specified in 37 C.F.R. § 1.17 (p) for submission of an information disclosure statement under 37 C.F.R. § 1.97 (c) (\$180); or a certification according to 37 C.F.R. § 1.97 (e).

( ) 37 C.F.R. § 1.97(d).

This information disclosure statement is filed after the period specified in 37 C.F.R. § 1.97 (c).

Accordingly, this information disclosure statement requires the fee specified in 37 C.F.R. § 1.17 (p) to consider an information disclosure statement under 37 C.F.R. § 1.97(d) (\$180), and a certification according to 37 C.F.R. § 1.97(e).

If this statement crosses in the mail with an office action, or is otherwise not in the indicated category of 37 C.F.R. § 1.97, it is respectfully requested that this statement be treated in the next appropriate category and made of record. To the extent required, please treat this paper as a conditional petition for acceptance of the information disclosure statement.

## II

- ( X ) No fee is due.
- ( ) The fee specified in 37 C.F.R. § 1.17(p) for submission of an information disclosure statement under 37 C.F.R. § 1.97(c) is enclosed (\$180).

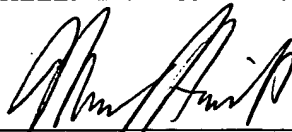
Please charge any additional required fee or credit any overpayment to our deposit account number 50-1698. An additional copy of this page is enclosed.

## III

Pursuant to 37 C.F.R. § 1.97(e) , I certify:

- ( X ) No certification is necessary.
- ( ) (1) Each item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the statement.
- ( ) (2) No item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c), more than three months prior to the filing of the statement.

Respectfully submitted,  
THELEN REID & PRIEST LLP

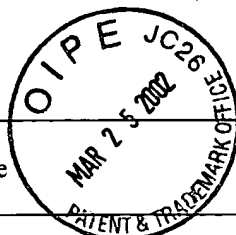


Marc S. Hanish  
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Dated: March 21, 2002

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(408) 292-5800

Form PTO 1449 (Rev. 2-32)		U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No. SNX-028		Serial No. 09/927,771		
Information Disclosure Statement by Applicant  (Use several sheets if necessary)				Applicant: Erik W. Rasmussen				
				Filed: August 10, 2001      Group: 2644				
<b>U.S. Patent Documents</b>								
Init.		Document No.	Date	Name	Class	Subclass	Filing Date	
	A	4,589,137	5/13/86	Miller	381	94	1/3/85	
	B	4,628,529	12/9/86	Borth et al.	381	94	7/1/85	
	C	4,750,207	6/7/88	Gebert et al.	381	68.4	3/31/86	
	D	4,759,071	7/19/88	Heide	381	68.4	8/14/86	
	E	4,837,832	6/6/89	Fanshel	381	68.4	10/20/87	
	F	5,097,510	3/17/92	Graupe	381	47	11/7/89	
	G	5,170,434	12/8/92	Anderson	381	68	6/28/91	
	H	5,285,502	2/8/94	Walton et al.	381	94	3/31/92	
	I	5,289,544	2/22/94	Franklin	381	68.1	12/31/91	
	J	5,412,735	5/2/95	Engebretson et al.	381	94	2/27/92	
	K	5,511,128	4/23/96	Lindemann	381	92	1/21/94	
	L	5,651,071	7/22/97	Lindemann et al.	381	68.2	9/17/93	
	M	6,272,229	8/7/01	Backgaard	381	313	8/3/99	
	N	US2001/0038699	11/8/01	Hou	381	92	3/20/01	
<b>Foreign Documents</b>								
Init.		Document No.	Date	Country	Class	Subclass	Translation	
							Yes	No
	O	WO 95/08248	3/23/95	International (PCT)				
	P	WO 99/09786	2/25/99	International (PCT)				
	Q	WO 99/39497	8/5/99	International (PCT)				
	R	WO 00/19770	4/6/00	International (PCT)				
	S	WO 01/69968	9/20/01	International (PCT)				
	T	WO 01/72085	9/27/01	International (PCT)				
<b>Other Documents (Including Author, Title, Date, Pertinent Pages, etc.)</b>								
	U	Greenberg, Julie E. et al., "Evaluation of an adaptive beamforming method for hearing aids", <i>J. Acoust. Soc. Am.</i> 91:3, pages 1662-1676 (March 1992)						
	V	Kollmeier, B. et al., "Binaural Noise-Reduction Hearing Aid Scheme with Real-Time Processing in the Frequency Domain", <i>Scand Audiol Suppl.</i> 38, pages 28-38 (1993)						
	W	Kollmeier, Birger et al., "Real-time multiband dynamic compression and noise reduction for binaural hearing aids", <i>Journal of Rehabilitation Research and Development</i> , Vol. 30: 1, pages 82-94 (1993)						
	X	Wittkop, Thomas et al., "Speech Processing for Hearing Aids: Noise Reduction Motivated by Models of Binaural Interaction", <i>ACUSTICA - acta acustica</i> , Vol. 83, pages 684-699 (1997)						
Examiner					Date Considered			
Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.								



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(Rev. 2-32)U.S. Department of Commerce  
Patent and Trademark OfficeAtty. Docket No.  
SNX-028Serial No.  
09/927,771

## Information Disclosure Statement by Applicant

Applicant: Erik W. Rasmussen

Filed: August 10, 2001

Group: 2644

(Use several sheets if necessary)

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Examiner

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